Unit in mm

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE

2 S B 1 4 9 5

HIGH POWER SWITCHING APPLICATIONS

• High DC Current Gain

: $h_{FE} = 2000$ (Min.) ($V_{CE} = -2V$, $I_{C} = -2A$)

• Low Saturation Voltage

: $V_{CE (sat)} = -1.5V (MAX.) (I_C = -1.5A)$

• Complementary to 2SD2257

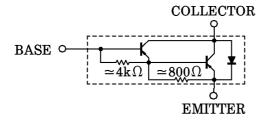
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage	v_{CBO}	-100	V		
Collector-Emitter Voltage	v_{CEO}	-100	V		
Emitter-Base Voltage	$V_{ m EBO}$	-8	V		
Collector Current	DC	$I_{\mathbf{C}}$	-3	A	
	Pulsed	I_{CP}	-5		
Base Current	$I_{\mathbf{B}}$	-0.3	Α		
Collector Power	Ta = 25°C	D =:	2.0	W	
Dissipation	$Tc = 25^{\circ}C$	$^{ m PC}$	20		
Junction Temperature		$\mathrm{T_{j}}$	150	$^{\circ}\mathrm{C}$	
Storage Temperature Range		$\mathrm{T_{stg}}$	-55~150	$^{\circ}\mathrm{C}$	

1. BASE 2. COLLECTOR 3. EMITTER JEDEC TOSHIBA 2.7±0.2 2.7±0.

Weight: 1.7g

EQUIVALENT CIRCUIT

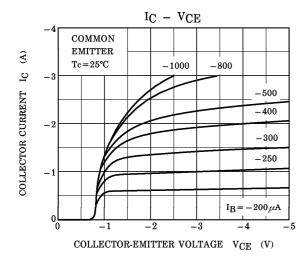


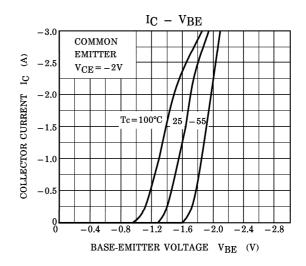
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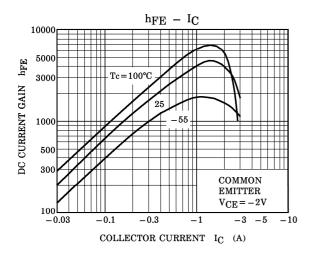
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

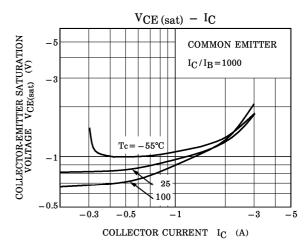
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -100V, I_E = 0$	_	_	-10	μ A
Emitter Cut-of	ff Current	I_{EBO}	$V_{EB} = -8V, I_{C} = 0$	-0.8	_	-4.0	mA
Collector-Emit Breakdown Vo		V (BR) CEO	$I_{\rm C} = -10 {\rm mA}, \ I_{\rm B} = 0$	-100	_	_	V
DC Current Gain		hFE (1)	$V_{CE} = -2V, I_{C} = -1A$	2000	_	_	
		hFE (2)	$V_{CE} = -2V, I_{C} = -2A$	2000	_	_	
Collector-Emitter Saturation Voltage		V _{CE} (sat)	$I_C = -1.5A, I_B = -1.5mA$	_	_	-1.5	V
Base-Emitter Saturation Voltage		V _{BE} (sat)	$I_C = -1.5A, I_B = -1.5mA$	_	_	-2.0	V
Switching Time	Turn-on Time	t _{on}	IB2 IB2 OUTPUT	_	0.5	_	
	Storage Time	t _{stg}	$\begin{array}{c c} I_{B1} & \hline \\ I_{NPUT} & I_{B1} \\ \hline \\ 20 \mu_s \\ \end{array}$	_	1.0	_	μ s
	Fall Time	tf	$-I_{B1} = I_{B2} = 1.5 \text{mA} \qquad V_{CC} \stackrel{}{=} -30 \text{V}$ DUTY CYCLE $\leq 1\%$		0.4	0.4	

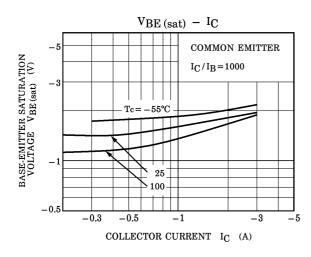
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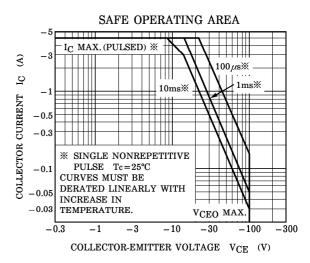












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